No.



8300030

THE UNITED STAYLES OF ANTERION

TO ALL TO WHOM THESE PRESENTS SHALL COME; Illinois Agricultural Experiment Station and ARS-USDA

TChereas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT RIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT.

12 UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

(*<u>Waived</u>, except that this waiver shall not apply to breeder seed, foundation seed, labeling requirements, and blending limitations.)

WHEAT 'Scotty'

In Lestimony Whercot, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of washington

at the City of washington
this 31st day of January in
the year of our Lord one thousand nine
hundred and eighty-six.

Acting Secretary of Stariousture

Attack:

Genneth H. Eans

Plant Variety Protection Office Agricultural Marketing Service

18. TEUVA 11. TEVVA 11. TEVVA 11. TEVVA 11. VI 4. FA G1 6. NA S1 9. IF OR Ag 12. NA AL (5) 85 13. CHI X X X X 14a. DOI SEE 14b. DOI LIM	ECATION FOR PLANT VARIESTICIONS: See Reverse. EMPORARY DESIGNATION OF ARIETY . 72-2218-1 IND NAME Theat AMILY NAME (BOTANICAL) Framineae AME OF APPLICANT(S) Firector, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PERGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPLICANT IS NOT A PERGANIZATION: UNIVERSITY OF ILL UNIVER	1b. VARIETY NAM Scotty 3. GENUS AND SPE Triticum a 5. DATE OF DETEI January 1, 7. ADDRESS (Stree Code) Unive Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A: 11inois Agricu 01	RECIES NAME RESTIVUM RMINATION , 1982 Restand No. or R.F.D. No., Persity of Illin na, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b ATIVE(S), IF ANY, TO HOLT	FILING DATE 12/30/82 FEE RECEIVED 1,000 \$ City, State, and ZIP TED, GIVE STATE AND PORATION Ty Federal Law	### A.M. 8:30 *** ********************************
2. KII 2. KII 4. FA G1 6. NA S1 9. IF OR Ag 12. NA AL [5] 85 14a. DOI SEE 14b. DOI 15a. DID	AMILY NAME (BOTANICAL) Framineae AME OF APPLICANT(S) Director, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PERCANIZATION: (Corporation, partnersh gricultural Experiment. AME AND MAILING ADDRESS OF APPLICANT IS UNIVERSITY OF I. Urbana, IL 6180 IECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	Scotty 3. GENUS AND SPE Triticum a 5. DATE OF DETER January 1, 7. ADDRESS (Stree Code) University Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A: 11inois Agricu 01	RMINATION , 1982 It and No. or R.F.D. No., Prsity of Illin ha, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b ATIVE(S), IF ANY, TO HOLT	FILING DATE 12/30/82 FEE RECEIVED 1,000 \$ City, State, and ZIP TED, GIVE STATE AND PORATION Ty Federal Law	### A.M. 8:30 *** BETT
11 2. Kill Will Will Will Will Will Will Will	IND NAME Theat AMILY NAME (BOTANICAL) Tramineae AME OF APPLICANT(S) Tirector, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PE AGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPL L PAPERS: Dr. R. G. Gragle University of I. Urbana, IL 6180 IECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	3. GENUS AND SPE Triticum a 5. DATE OF DETER January 1, 7. ADDRESS (Stree Code) University Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A: 11inois Agricu 01	RMINATION , 1982 et and No. or R.F.D. No., ersity of Illin na, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b (Hatch Act HOLT	FILING DATE 12/30/82 FEE RECEIVED 1,000 \$ City, State, and ZIP LOIS FED, GIVE STATE AND PORATION Ty Federal Law	8:30 **** B:30 **** DATE 12/30/82 8. TELEPHONE AREA CODE AND NUMBER (217) 333-024 11. DATE OF INCORPORATION 1889
4. FA G1	Theat AMILY NAME (BOTANICAL) Framineae AME OF APPLICANT(S) Firector, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PER REGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPLICANT IS L PAPERS: Dr. R. G. Gragle University of I: Urbana, IL 6180 BECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	Triticum a 5. DATE OF DETER January 1, 7. ADDRESS (Stree Code) University Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A: 1linois Agricu 01	RMINATION , 1982 et and No. or R.F.D. No., ersity of Illin na, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b (Hatch Act HOLT	12/30/82 FEE RECEIVED \$ 1,000 \$ City, State, and ZIP TED, GIVE STATE AND PORATION Ty Federal Law	8:30 **** DATE 12/30/82 8. TELEPHONE AREA CODE AND NUMBER (217) 333-024 11. DATE OF INCORPORATION 1889
4. FA G1 G1 G. NA D1 Ag S1 9. IF OR Ag 12. NA AL (5) 85 13. CHI X X X 14a. DOI SEE 14b. DOI LIM	ramineae AME OF APPLICANT(S) Director, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PERSONNIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPLICANT IS NOT A PERSONNIZATION: University of I. Urbana, IL 6180 BECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	January 1, 7. ADDRESS (Stree Code) University Urban ERSON, FORM Of ip, association, etc.) Station LICANT REPRESENT, e DONALD A: 11inois Agricu 01	RMINATION , 1982 et and No. or R.F.D. No., ersity of Illin na, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b ATIVE(S), IF ANY, TO HOLT	FEE RECEIVED \$ 1,000 \$ City, State, and ZIP OIS FED, GIVE STATE AND PORATION Ty Federal Law	8. TELEPHONE AREA CODE AND NUMBER (217) 333-024
6. NA D: Ag St 9. IF OR Ag 12. NA AL (6) 85 13. CHI X X 14a. DOI SEE 14b. DOI LIM	AME OF APPLICANT(S) irector, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PE RGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPL L PAPERS: Dr. R. G. Gragle University of I. Urbana, IL 6180 IECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	January 1, 7. ADDRESS (Stree Code) University Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A. 11inois Agricu 01	t and No. or R.F.D. No., ersity of Illin na, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b ATIVE(S), IF ANY, TO HOLT	\$ City, State, and ZIP TO STATE AND SPORATION TO FEDERAL STATE AND SPORATION TO FEDERAL LAW	8. TELEPHONE AREA CODE AND NUMBER (217) 333-024
6. NA D1 A8 S1 9. IF OR A8 12. NA AL (5/85 13. CHI X X X X X X X X X X X X X X X X X X	AME OF APPLICANT(S) director, Illinois gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PE AGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPLICANT IS UPPLICANT IS NOT A PE TO APPLICANT IS NOT A PE GRANIZATION: (Corporation, partnersh gricultural Experiment UPPLICANT IS NOT A PE UNIVERSITY OF INTERPRETATION UPPLICANT INTERPRETATION	7. ADDRESS (Stree Code) University Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A. 11inois Agricu 01	ersity of Illin na, IL 61801 10. IF INCORPORAT DATE OF INCOR Established b (Hatch Act HOLT	iois red, give state and sponation y Federal Law	(217) 333-024 11. DATE OF INCOR- PORATION 1889
12. NA AL	gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PE AGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPLICANT IS UNIVERSITY OF I. Urbana, IL 6180 BECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	Code) Unive Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A. 11inois Agricu 01	Prsity of Illing a, IL 61801 10. IF INCORPORATE DATE OF INCORE Established by (Hatch Act ATIVE(S), IF ANY, TO HOLT	iois red, give state and sponation y Federal Law	(217) 333-024 11. DATE OF INCOR- PORATION 1889
12. NA AL SI & SI	gricultural Experiment tation and ARS-USDA THE NAMED APPLICANT IS NOT A PE GGANIZATION: (Corporation, partnersh gricultural Experiment AME AND MAILING ADDRESS OF APPLICATE Dr. R. G. Gragle University of I. Urbana, IL 6180 IECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	Unive Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, DONALD A. 11inois Agricu 01	10. IF INCORPORATE DATE OF INCORPORATE OF INCORPORATE OF INCORPORATE OF THE PROPERTY OF THE PR	TED, GIVE STATE AND PORATION Y Federal Law	(217) 333-024 11. DATE OF INCOR- PORATION 1889
9. IF OR AS	tation and ARS-USDA THE NAMED APPLICANT IS NOT A PERGANIZATION: (Corporation, partnersh gricultural Experiment.) AME AND MAILING ADDRESS OF APPLICATE Dr. R. G. Gragle University of I. Urbana, IL 6180 IECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	Urban ERSON, FORM OF ip, association, etc.) Station LICANT REPRESENT, E DONALD A. 11inois Agricu 01	10. IF INCORPORATE DATE OF INCORPORATE OF INCORPORATE OF INCORPORATE OF THE PROPERTY OF THE PR	TED, GIVE STATE AND PORATION Y Federal Law	11. DATE OF INCOR- PORATION 1889
12. NA AL (6) % 5 13. CHI 14a. DOI SEE 14b. DOI LIM	GGANIZATION: (Corporation, partnersh gricultural Experiment SAME AND MAILING ADDRESS OF APPLICATION OF R. G. Gragle University of I. Urbana, IL 6180 GECK BOX BELOW FOR EACH ATTACH 13A. Exhibit A, Origin and Bree	ip, association, etc.) Station LICANT REPRESENT, DONALD A. 11inois Agricu 01	Established b ATIVE(S), IF ANY, TO HOLT	PORATION y Federal Law	PORATION 1889
13. CHI 13. CHI 14a. DOI SEE 14b. DOI 15a. DID	University of I. Urbana, IL 6180 IECK BOX BELOW FOR EACH ATTACH X 13A. Exhibit A, Origin and Bree	e DonaLD A. 11inois Agricu 01	HOLT	SERVE IN THIS APPLI	CATION AND RECEIVE
14a. DOI SEE 14b. DOI LIM	X 13A. Exhibit A, Origin and Bree			ent Station	C. T. O. AND RECEIVE
14a. DOI SEE 14b. DOI LIM	-				
14a. DOI SEE 14b. DOI LIM		eding History of the	Variety (See Section .	52 of the Plant Varie	ty Protection Act.)
14a. DOI SEE 14b. DOI LIM	X 13B. Exhibit B, Novelty Statem		, (e e Maria de la composición de la comp La composición de la	
14a, DOI SEE 14b, DOI LIM	X 13C. Exhibit C, Objective Descr	iption of the Variety	y (Request form from	Plant Variety Protec	tion Office.)
14b. DOI LIM	X 13D. Exhibit D, Additional Des	cription of the Varie	ety.		•
LIM 15a. DID	DES THE APPLICANT(S) SPECIFY THA ED? (See Section 83(a). (If "Yes," answe			RIETY NAME ONLY A NO	S A CLASS OF CERTIFIED
15a, DID	DES THE APPLICANT(S) SPECIFY THAT MITED AS TO NUMBER OF GENERATI			IB, HOW MANY GENER BREEDER SEED?	RATIONS OF PRODUC-
15a. DID nam	X YES NO		1	REGISTERED	CERTIFIED
	D THE APPLICANT(S) FILE FOR PROT ne of countries and dates.)	ECTION OF THIS VAI	RIETY IN OTHER COU	NTRIES? YES	NO (If "Yes," give
	VE RIGHTS BEEN GRANTED THIS VA d dates.)	ARIETY IN OTHER CO	DUNTRIES? YES	NO (If "Yes,"	"give name of countries
JOU	ES THE APPLICANT(S) AGREE TO TH	□ NO			
17. The	e applicant(s) declare(s) that a viable plenished upon request in accordance	e sample of basic see e with such regulatio	ed of this variety will l ons as may be applical	be furnished with the ole.	application and will be
The vari	ne undersigned applicant(s) is (are) the riety is distinct, uniform, and stable a of the Plant Variety Act.	ne owner(s) of this se	exually reproduced no	ovel plant variety, and	believe(s) that the ne provisions of Section
App	oplicant(s) is (are) informed that false	e representation here	ein can jeopardize pro	otection and result in	penalties.
	- , ,			SIGNATURE OF APPL	LOANT)

13A. Exhibit A, Origin and Breeding History of Scotty.

Scotty (PI 469294) was developed by the Illinois Agricultural Experiment Station in cooperation with ARS, U.S. Department of Agriculture. Scotty resulted from the cross of a Virginia line designated Va. 66-54-10 with Arthur.

Scotty was developed by a combination of the bulk and pedigreed method with the ${\rm F_1}$ and ${\rm F_2}$ generations grown in bulk without selection and with plant selection in the ${\rm F_3}$ and ${\rm F_4}$ generation. Breeders' seed originated from the increase of a single head row selected in the ${\rm F_5}$ generation.

Scotty was tested for performance in nursery trials in Illinois from 1974 to 1982, in drill plot trials in Illinois from 1978 to 1982, and in the Uniform Eastern Soft Red Winter Wheat Performance Nursery in 1979 to 1982. Soft wheat quality was evaluated from the Uniform Eastern Soft Red Winter Wheat Performance Nursery grown in 1979 to 1982. It was in disease nurseries at Urbana, Illinois from 1972 to 1982.

Scotty has been true breeding during our observations in developing breeders' seed.

Wheat Application No. 8300030, "Scotty"

ADDENDUM A

Scotty may exhibit up to four-tenths of one percent (.4%) of fully awned heads and up to four-tenths of one percent (.4%) of plants that are 10 to 12 cm. taller than normal Scotty plants. These variants were in the variety when it was released but were not initially described.

Milling, baking and protein data for Scotty:

Scotty was evaluated for soft wheat milling and baking quality by the United States Department of Agriculture Soft Wheat Quality Lab at Wooster, Ohio. Scores for the year 1979-1982 were as follows:

<u>Year</u>		Milling Score	Baking Score	Protein <u>Percentage</u>
1979 1980 1981 1982		98.3 98.4 94.1 95.3	113.5 108.3 101.8 98.0	10.7 10.8 11.8 11.9
	Mean	96.5	105.4	11.3

Milling or baking scores above 90 corresponds to a "good" rating so the data clearly show that Scotty is quite satisfactory both for milling and baking qualities.

13B. Exhibit B, Novelty Statement.

Scotty is a beadless soft red winter wheat variety with good milling and baking quality and resistance to diseases that are prevalent in Illinois.

Scotty is most similar to Arthur, one of its parents. It can be distinguished from Arthur in the following ways:

- 1) Scotty is very resistant to prevalent races of powdery mildew while Arthur is susceptible. Scotty is also more resistant to powdery mildew than several other beardless soft wheat varieties of similar maturity, including Arthur 71, Abe, Oasis, Roland, Caldwell, and Pike.
- 2) Scotty is moderately resistant to prevalent races of leaf rust whereas Arthur is susceptible. Under field conditions at Urbana, Illinois, Scotty has shown resistance similar to Caldwell but not equal to Auburn. It is more resistant to leaf rust than Abe, Roland, Pike, Arthur 71, and Oasis.
- 3) Scotty has purple colored coleoptiles whereas the coleoptiles of Arthur are white.
- 4) The stems of Scotty, particularly the peduncle, will in most seasons exhibit a distinct purple color, whereas the stems of Arthur are white.

The stem color of Scotty also distinguishes it from varieties Abe, Arthur 71, Oasis, Roland, and Pike. The color difference is especially visible approximately one week prior to maturity. The stem color of Scotty has appeared similar to that of Tyler in our observations.

Table 1. Yield and Test Weight of Several Winter Wheat Varieties Grown in Drill Plots at Urbana, Illinois. 1978-81.

							Test Wt.
	1978	1979	1980	1981	4 yr. ave. 1978-81	2 yr. ave. 1980-81	2 yr. ave. 1980-81
Scotty	76.1	97.6	103.4	99.9	94.2	101.7	59.6
Abe	75.1	86.8	88.7	55.0	76.4	71.8	59.9
Hart	77.6	94.5	92.0	74.1	84.6	83.0	59.7
Roland	74.8	92.2	88.2	73.7	82.2	81.0	58.8
Pike			87.2	74.8		81.0	59.2
Caldwell			95.3	83.8		89.6	59.7

Table 2. Yield and Test Weight of Several Winter Wheat Varieties, Grown in Drill Plots at Brownstown, Illinois. 1980-81.

		Yield Bu./Acre				
	1980	1981	2 yr. ave.	2 yr. ave.		
Scotty	77.9	86.0	82.0	57.0		
Abe	67.9	67.0	67.5	57.5		
Hart	74.0	82.0	78.0	57.5		
Roland	70.0	74.0	72.0	56.0		
Pike	78.8	72.0	75.4	57.5		

Table 3. Yield and Test Weight of Several Winter Wheat Varieties Grown in Drill Plots at DeKalb, Illinois. 1980-81.

		Yield Bu./Acre				
	1980	1981	2 yr. ave.	2 yr. ave.		
Scotty	72.9	56.5	64.7	55.0		
Abe	69.0	54.2	61.6	57.8		
Hart	70.9	57.1	64.0	57.8		
Roland	61.5	53.9	57.6	56.5		
Pike	74.2	55.9	65.0	56.0		

Table 4. Yield (Bu/A) of Several Winter Wheat Varieties Grown in Nursery Plots at Urbana, Brownstown, and DeKalb, Illinois. 1979-81.

	Urbana		Brownstown		DeKa1b	
	3 yr. ave. 1979-81	2 yr. ave. 1980-81	3 yr. ave. 1979-81	-	_	2 yr. ave. 1980-81
Scotty	70.1	66.6	60.1	63.2	63.2	63.7
Abe	54.3	55.3	56.5	56.5	57.5	58.2
Hart	54.8	54.0	58.4	57.1	63.0	64.9
Roland	64.7	60.9	62.5	66.5	58.8	58.0
Pike		61.7		62.0		58.7
Caldwell		63.7		67.1		64.4

Table 5. Yield and Test Weight of Scotty, Oasis, and Caldwell Grown in the Uniform Eastern Soft Wheat Nursery. 1979-81.

			Took		
	1979 (24) ¹	1980 (17) ¹	1981 (20) ¹	Ave. (61) ²	Test wt. lbs/bu. (61) ²
Scotty	63	68	59	63	58
Caldwell	55	66	56	59	57
Oasis	55	54	52	54	59
Ave. of Test ³	53	61	55	56	58 .

¹Number of locations.

²Location x years.

³28 entries in 1979; 33 entries in 1980 and 1981.

U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE LIVESTOCK, POULTRY, GRAIN & SEED DIVISION BELTSVILLE, MARYLAND 20705

EXHIBIT C (Wheat)

OBJECTIVE DESCRIPTION OF VARIETY WHEAT (TRITICUM SPP.)

NAME OF APPLICANT(S)		FOR OFFICIAL LIST ONLY
Director, Illinois Agricultural Experimen ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	t Station	FOR OFFICIAL USE ONLY P VPO NUMBER 300030
University of Illinois		VARIETY NAME OR TEMPORARY
Urbana, IL 61801		DESIGNATION
013010, 11 01001	•	Scotty
Place the appropriate number that describes the varietal character Place a zero in first box ($e \cdot B \cdot \boxed{0} \boxed{8} \boxed{9}$ or $\boxed{0} \boxed{9}$) when number	r of this variety in the is either 99 or less or	e boxes below. 9 or less.
1. KIND:		
	= POLISH 6 = POU	LARD 7 ≈ CLUB
2. TYPE:	I I	3 = OTHER (Specify)
2 1 = SPRING 2 = WINTER 3 = OTHER (Specify)	. 1 2 = HARD	
2 1 = WHITE 2 = RED 3 = OTHER (Specify)	<u> </u>	
3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:		
2 2 8 FIRST FLOWERING	2 3 5 LAST	FLOWERING
4. MATURITY (50% Flowering):		
NO. OF DAYS EARLIER THAN	1 l = ARTHUR	2 = SCOUT 3 = CHRIS
0 1 NO. OF DAYS LATER THAN	4 = LEMHI	5 = NUGAINES 6 = LEEDS
5. PLANT HEIGHT (From soil level to top of head):		
0 9 5 cm. High		
CM. TALLER THAN		
O 3 CM. SHORTER THAN	1 = ARTHUR	2 = SCOUT 3 = CHRIS
<u> </u>	4 = LEMHI	5 = NUGAINES 6 = LEEDS
6. PLANT COLOR AT BOOTING (See reverse):	7. ANTHER COLOR:	· · · · · · · · · · · · · · · · · · ·
2 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN	1 = YELLOW	2 = PURPLE
B. STEM:		
Anthocyanin: 1 = ABSENT 2 = PRESENT	1 Waxy bloom: 1	= ABSENT 2 = PRESENT
Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT	1 Internodes: 1 =	HOLLOW 2 = SOLID
0 4 NO. OF NODES (Originating from node above ground)	2 2 CM. INTER	RNODE LENGTH BETWEEN FLAG LEAF F BELOW
AURICLES:	·	
2 Anthocyanin: 1 = ABSENT 2 = PRESENT	1 Hairiness: 1 =	ABSENT 2 = PRESENT
0. LEAF:		<u> </u>
Flag leaf at 1 = ERECT 2 = RECURVED booting stage: 3 = OTHER (Specify):	1 Flag leaf: 1 = N	NOT TWISTED 2 = TWISTED
Hairs of first leaf sheath: I = ABSENT 2 = PRESENT	2 Waxy bloom of fl	ag leaf sheath: 1 = ABSENT 2 = PRESENT
1 3 MM. LEAF WIDTH (First leaf below flag leaf)	1 8 CM. LEAF	LENGTH (First leaf below flag leaf):
0.014 (0.00 (1.00 (0.00) (0.00) (0.00)	- 4 "	

Shape: = TAPERING 2 = STRAP 3 = CLAVATE				
3 Awnediness: 1 = Awnitess 2 = APICALLY AWNIETED 3 = AWNIETED 4 = AWNED	1 Density: I = LAX	2 = DENSE	7 1 1 -	
Color at maturity; 5 = BROWN 6 = BLACK 7 = OTHER (Specify)	3 Awnedness: 1 = AWN	LESS 2 = APICALLY AWNLETED 3		o de la companya de l La companya de la co
D B CML LENGTH	Color at maturity:	BROWN 6-BLACK 7-0THE		·
3 Longth: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 2 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = NOIG (CA. 9 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = NOIG (CA. 4 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = NOIG (CA. 4 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = NOIG (CA. 4 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = NOIG (CA. 4 mm.) 1 = N			0 9 MM. WIDTH	
3 Shoulder 1 = WANTING 2 = OBLIQUE 5 = ROUNDED 6 = APICULATE 1 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE 15. COLEOPTILE COLOR. 3 1 = WHITE 2 = RED 3 = PURPLE 2 = RED 3 = PURPLE 2 = RESENT 2 = PRESENT 15. JUYENILE PLANT GROWTH HABIT: 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT 16. SEED. 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL 1 Cheek: 1 = ROUNDED 2 = ANGULAR 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL 1 Cheek: 1 = ROUNDED 2 = ANGULAR 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 2 = COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED	A Length: = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)	1 7 1	·
3 Shoulder 1 = WANTING 2 = OBLIQUE 5 = ROUNDED 6 = APICULATE 1 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE 15. COLEOPTILE COLOR. 3 1 = WHITE 2 = RED 3 = PURPLE 2 = RED 3 = PURPLE 2 = RESENT 2 = PRESENT 15. JUYENILE PLANT GROWTH HABIT: 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT 16. SEED. 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL 1 Cheek: 1 = ROUNDED 2 = ANGULAR 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL 1 Cheek: 1 = ROUNDED 2 = ANGULAR 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED 2 = COLLARED 2 = COLLARED 1 Shape: 1 = NOT COLLARED 2 = COLLARED	The state of the s		•	
3 = WHITE 2 = RED 3 = PURPLE 2 1 = ABSENT 2 = PRESENT 15. JUYENILE PLANT GROWTH HABIT: 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT 16. SEED: 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL 1 Cheek: 1 = ROUNDED 2 = ANGULAR 1 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG 1 Brush: 1 = NOT COLLARED 2 = COLLARED 1 Brush: 1 = SHORT 2 = MEDIUM 3 = L.T. BROWN 1 Shape: 1 = OVATE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) 1 SOIO: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) 1 SOIO: 1 = SOIO CLESS OF KERNEL WINNOKA' 2 = SOIO CLESS OF KERNEL 'CHRIS' 3 = NEARLY, AS WIDE AS KERNEL 'LEMHI' 3 = SOIO CLESS OF KERNEL 'CHRIS' 3 = SOIO CLESS OF KERNEL 'LEMHI' 3 = S	3 Shoulder 1 = WANTI	ig 2 = OBLIQUE 3 = ROUNDED	Beak: 1 = OBTUSE	2 = ACUTE 3 = ACUMINATE
3 1 = WHITE 2 = RED 3 = PURPLE 2 1 = ABSENT 2 = PRESENT 15. JUVENILE PLANT GROWTH HABIT: 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT 16. SEED: 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL 1 Cheek: 1 = NOT COLLARED 2 = ANGULAR 1 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG 1 Brush: 1 = NOT COLLARED 2 = COLLARED 1 Brush: 1 = NOT COLLARED 2 = COLLARED 1 Brush: 1 = NOT COLLARED 2 = COLLARED 2 STORM STATUSTON 3 4 5 = OVATE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) 1 SUBSTANTIAL STATUS 2 = SON OR LESS OF KERNEL "WINDKA" 2 = SON OR LESS OF KERNEL "CHRIS" 3 = SON OR LESS OF KERNEL "CHRIS" 3 = SON OR LESS OF KERNEL "CHRIS" 3 = SON OR LESS OF KERNEL "LEMHI"	13. COLEOPTILE COLOR:	A CONTRACTOR OF THE PROPERTY O	14. SEEDLING ANTHOCY	ANIN:
1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT 3 = ERECT 3 5 5 5 5 5 5 5 5 5	3 1 = WHITE 2 = RE	D 3. = PURPLE		
1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT 3 = ERECT 3 5 5 5 5 5 5 5 5 5	15. JUVENILE PLANT GRO	WTH HABIT:		
There is no varied and the second in the sec	And the second second	e Britania de la companya della companya della companya de la companya della comp	r.	
There is no varied and the second in the sec	16. SEED:			
Brush: = SHORT 2 = MEDIUM 3 = LONG 1 Brush: 1 = NOT COLLARED 2 = COLLARED	Shape: l = OVATE	2 = OVAL 3 = ELLIPTICAL	1 Cheek: 1 = ROUND	ED 2 = ANGULAR
Phenol reaction (See instructions):	1 1			
Clark Instructional): A = BROWN S = BLACK				DLLARED 2 = COLLARED
17. SEED CREASE: 1			N.	
17. SEED CREASE: 1 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY, AS WIDE AS KERNEL 'LEMHI' 3 = 50% OR LESS OF KERNEL 'LEMHI' 3 = 50% OR LESS OF KERNEL 'LEMHI' 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2 STEM RUST (Races) 2 LEAF RUST (Races) 3 = 50% OR LESS OF KERNEL 'LEMHI' 2 OTHER (Specify) 3 = 50% OR LESS OF KERNEL 'CHRIS' 4	3 Color: 1 = WHITE	2 = AMBER 3 = RED 4 = PURPLE	5 = OTHER (Specify)	
Depth: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI' 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2 POWDERY MILDEW 0 BUNT 1 APHID (Bydv.) 0 GREEN BUG 0 THER (Specify) 1 APHID (Bydv.) 1 APHID (Bydv.) 1 D 1 E 0 F 0 G 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY Plant tillering Tyler Colegoptile elongation 2 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'SCOUT' 3 = 50% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'SCOUT' 3 = 50% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'SCOUT' 3 = 50% OR LESS OF KERNEL 'CHRIS' 1	0 6 MM. LENGTH	MM. WIDTH	3 4 GM. PER 1000	SEEDS
2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI' 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2 STEM RUST (Races)	17. SEED CREASE:			
2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI' 3 = 50% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI' 3 = 50% OR LESS OF KERNEL 'LEMHI' 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2 STEM RUST	1 Width: 1 = 60% OR LE	ESS OF KERNEL 'WINOKA'	Depth: 1 = 20% Of	R LESS OF KERNEL 'SCOUT'
3 = NEARLY AS WIDE AS KERNEL 'LEMHI' 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2 STEM RUST (Races) 2 LEAF RUST (Races) 0 STRIPE RUST (Races) 0 LOOSE SMUT 2 OTHER (Specify) Soil Borne Mosaic 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 0 SAWFLY 1 APHID (Bydv.) 0 GREEN BUG 1 CEREAL LEAF BEETLE 0 OTHER (Specify) HESSIAN FLY RACES: 1 D 1 E 0 F 0 G 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY Plant tillering Tyler Seed size Arthur Leaf size Arthur Coleoptile elongation Arthur Coleoptile elongation Arthur Coleoptile elongation Tyler Coleoptile elongation Arthur	1 - 1	SS OF KERNEL 'CHRIS'	2 = 35% OF	LESS OF KERNEL 'CHRIS'
18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 2	8 No. 14 No. 15 Th Third		3 = 50% OF	LESS OF KERNEL 'LEMHI'
2 STEM RUST (Races) 2 LEAF RUST (Races) 0 STRIPE RUST (Races) 0 LOOSE SMUT 2 POWDERY MILDEW 0 BUNT 2 OTHER (Specify) Soil Borne Mosaic 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 0 SAWFLY 1 APHID (Bydv.) 0 GREEN BUG 1 CEREAL LEAF BEETLE OTHER (Specify) HESSIAN FLY 2 GP 2 A 1 B 1 C RACES: 1 D 1 E 0 F 0 G 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY CHARACTER NAME OF VARIETY Plant tillering Tyler Seed size Arthur Leaf size Arthur Leaf color Tyler Colephic elongation Arthur Colephic elongation Arthur Tyler Tyler Tyler Tyler Tyler Tyler Colephic elongation Arthur Tyler Tyler Colephic elongation Arthur Tyler Tyler Tyler Tyler		······································		
2 POWDERY MILDEW 0 BUNT 2 OTHER (Specify) Soil Borne Mosaic 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) 0 SAWFLY 1 APHID (Bydv.) 0 GREEN BUG 1 CEREAL LEAF BEETLE OTHER (Specify) HESSIAN FLY 2 GP 2 A 1 B 1 C RACES: 1 D 1 E 0 F 0 G 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY CHARACTER NAME OF VARIETY Plant tillering Tyler Seed size Arthur Leaf size Arthur Seed shape Arthur Leaf color Tyler Coleoptile elongation Arthur	2 STEM RUST	2 LEAF RUST		1 LOOSE SMUT
19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) O SAWFLY OTHER (Specify) HESSIAN FLY RACES: 1 D 1 E 0 F 0 G 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY Plant tillering Leaf size Arthur Coleoptile elongation Tyler Coleoptile elongation Coleoptile elongation Coleoptile elongation Coleoptile elongation Arthur				
O SAWFLY I APHID (Bydw.) O GREEN BUG OTHER (Specify) HESSIAN FLY 2 GP 2 A 1 B 1 C RACES: I D 1 E O F O G 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY Plant tillering Leaf size Arthur Coleoptile elongation Tyler Tyler Coleoptile elongation Tyler Coleoptile elongation Tyler Coleoptile elongation Tyler Coleoptile elongation Tyler Tyler Coleoptile elongation Tyler Tyler			Z OTHER (specify) So	oll Borne Mosaic
RACES: 1	 1		O GREEN BUG	1 CEREAL LEAF BEETLE
20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED: CHARACTER NAME OF VARIETY CHARACTER NAME OF VARIETY Plant tillering Tyler Seed size Arthur Leaf size Arthur Coleoptile elongation Arthur Tyler Coleoptile elongation Arthur	OTHER (Specify)	HESSIAN FLY	2 GP 2 A	1 B 1 C
CHARACTER NAME OF VARIETY Plant tillering Tyler Leaf size Arthur Coleoptile elongation Tyler Coleoptile elongation Arthur Arthur Coleoptile elongation Arthur		RACES:	1 D 1 E	0 F 0 G
CHARACTER NAME OF VARIETY Plant tillering Tyler Leaf size Arthur Coleoptile elongation Tyler Coleoptile elongation Arthur Arthur Coleoptile elongation Arthur	20. INDICATE WHICH VADIE	TY MOST CLOSELY RESEMBLES THAT S	LIBMITTED:	
Leaf size Arthur Seed shape Arthur Leaf color Tyler Coleoptile elongation Arthur				NAME OF VARIETY
Leaf size Arthur Seed shape Arthur Leaf color Tyler Coleoptile elongation Arthur	Plant tillerina	Tvv1 one	Seed size	Arthur
Leaf color Tyler Coleoptile elongation Arthur		· · · • · · · · · · ·		
C. II				
				

INSTRUCTIONS

GENERAL. The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

- (a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.
- (b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.



13D. Exhibit D, Description of Additional Characteristics

Scotty is an awnleted variety with maturity similar to Roland and only one to two days later than Arthur. It is approximately 3 cm shorter than Arthur and has better lodging resistance. Winter hardiness level is similar to that of Arthur.

The kernel size of Scotty is similar to that of Arthur, but its weight per bushel is usually one or two pounds lower. The USDA Soft Wheat Quality Lab rated Scotty good for milling and excellent for baking quality.

Scotty has excellent resistance to powdery mildew and stem rust, and moderate resistance to prevalent races of leaf rust. It has the $\rm H_3$ gene for resistance to Hessian fly and is resistant to Soil Borne Mosaic.

Scotty has had an excellent yield record in Illinois and in other states in the soft red winter wheat region. Yield and test weight data for Scotty and several other varieties at several locations in Illinois and in the Uniform Eastern Soft Wheat Nursery are presented in Tables 1-5.

PLANT VARIETY PROTECTION OFFICE

Gentlemen:

Subject: Application No. 8300030

'Scotty' Wheat

As provided in section 83(a) of the Plant Variety Protection Act, 7 U.S.C. 2321, we request that the Certificate on the above variety be issued with a notation on the Certificate that the right to exclude others from selling, offering for sale, reproducing, importing or exporting the variety covered by this Certificate, or using it in producing a hybrid or different variety is waived, except that this waiver shall not apply to breeders seed, foundation seed, labeling requirements, and blending limitations.

It has been agreed that the Certificate should be issued in the name(s) of:

<u> </u>	inois Agricultural	Experiment Station
and	ARS-USDA	·

November 4, 1985 (Date)

(Signature)